

Work Order ID 154891***154891***

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Tuesday, January 03, 2017 1:10:33 PM

Item ID: D3015-3 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Locknut
Start Date: 1/5/2017 Start Qty: 100.00 ***100*** Cust Item ID:
Required Date: 1/17/2017 Req'd Qty: 100.00 ***100*** Customer:
Reference:

Approvals: Process Plan: **DAS 21 9-89** Date: **JAN 03 2017** Tooling: Date: Run Start ***NR1***
QC: Date: SPC (Y/N): Date: Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D3015	Rev C								DAS 13 9-89
100	PURCHASING	0.00							
100									
Purchasing	Memo	0.00							
Purchasing	Issue P/O: 34801								
	Description: SS locknut with nylon insert								
	Possible Supplier: Main Industrial P/N: PFS LNNC516S1								
	Material release note required								
110	Receive & Inspect for Damage & Mat'l Certs	0.00							
110									
Packaging	Memo	0.33							
Packaging	Ensure Material Release Note is attached								
120	QC6- Inspect dimensions to drawing	0.00							
120									
QC	Memo	0.00							
Quality Control									

JAN 10 2017

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS <table style="width: 100%; border: none;"> <tr> <td style="border: none;">Skid-tube ☐</td> <td style="border: none;">Cross tube ☐</td> <td style="border: none;">Water Jet ☐</td> <td style="border: none;">Engineering ☐</td> </tr> <tr> <td style="border: none;">Machining ☐</td> <td style="border: none;">Small Fab ☐</td> <td style="border: none;">Prod. Eng. Coord. ☐</td> <td style="border: none;">Quality ☐</td> </tr> <tr> <td style="border: none;">Thermoforming ☐</td> <td style="border: none;">Finishing ☐</td> <td style="border: none;">Rec/Store/Packaging ☐</td> <td style="border: none;">Other ☐</td> </tr> <tr> <td style="border: none;">Large Fab ☐</td> <td style="border: none;">Composite ☐</td> <td style="border: none;">Supplier ☐</td> <td></td> </tr> </table>						Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
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Date :		Step #:		QTY Effective :			MRB (QSI042) Approval																		
Description Work Order Deviation				Disposition				Completed By																	
								Lead hand / Supervisor Approval Verification																	
								QC / QA Coordinator Approval																	
Root Cause		FAULT CATEGORY																							
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐		Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐		Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐		Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐																	
OTHER :																									

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Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130	Identify as per dwg & Stock Location: <u>Stor</u>	0.00							
130						<u>100</u>	<u>DAS</u>	<u>JAN 10 2017</u>	
Packaging	Memo	0.17					<u>6</u>		
Packaging							<u>9-89</u>		
140	QC21- Final Inspection - Work Order Release	0.00							
140							<u>DAS</u>	<u>JAN 10 2017</u>	
QC	Memo	1.67					<u>21</u>		
Quality Control							<u>9-89</u>		

MF
17-01-10

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐	OTHER : _____			

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154891

D3015-3

Required Qty: 100.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
PFS-LNNC5/16S1		Purchased	No			110	Each	0.0000	1	100			
PFS-I NNC5/16S1									**	100 x 17-d-6			
Lock Nut													

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

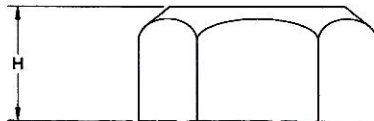
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Work Order update only ☐

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Date :		Step #:		QTY Effective :			MRB (QSI042) Approval 		
Description Work Order Deviation				Disposition					
							Completed By		
							Lead hand / Supervisor Approval Verification		
							QC / QA Coordinator Approval		

Root Cause				FAULT CATEGORY			
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐		
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐		
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐		
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐		
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐		
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐		
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐		
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐		
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐		
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐		
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____					
Misidentified ☐	Past Due ☐						

SPECIFICATION CONTROL DRAWING



D3015-X LOCKNUT

PART NUMBER	SIZE	HEIGHT H	POSSIBLE SUPPLIER
D3015-1	1/4-20 UNC	0.31	ACKLANDS, P/N PFSLNNC14S1
D3015-3	5/16-18 UNC	0.34	ACKLANDS, P/N PFSLNNC516S1
D3015-5	7/16-14 UNC	0.46	ACKLANDS, P/N PFSLNNC716S1
D3015-7	M5	0.19	ACKLANDS, P/N FLMN021-005-0000

△ C

NOTES:

- 1) MATERIAL: SS LOCKNUT WITH NYLON INSERT
- 2) FINISH: N/A
- 3) TOLERANCES: ALL DIMENSIONS SHOWN AS REFERENCE
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: N/A

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER

NO. 154891 MLJ
1701-03

RELEASED
09/07/08

C	REFORMAT DWG, -7 P/N NOW FLMN021-005-0000 WAS LNNMSS1 (ZN BB-1), PAR 09-020	CP	09.07.08
B	ADD D3015-7	KJ	03.07.15
A	NEW ISSUE	DS	01.05.03
REV.	DESCRIPTION	BY	DATE
DESIGN			
DRAWN			
CHECKED			
MFG. APPR.			
APPROVED			
DE APPR.			
DATE	09.07.08		

DART AEROSPACE LTD
HAWKESBURY, ONTARIO, CANADA

DRAWING NO. **D3015** REV. C
SHEET 1 OF 1
TITLE **LOCKNUT** SCALE NTS

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Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID **PO34801**

Purchase Order Date 1/4/2017

PO Print Date 1/4/2017

Page Number 2 of 3

Order From :
MAIN INDUSTRIAL SALES LTD.
1475, TESSIER
HAWKESBURY, ON K6A 3S6
CA

VC-MAI001

Ship To : DART AEROSPACE LTD
1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

Contact Name
Vendor Phone 613 632 3595

Ship To Contact
Ship To Phone
Ship Via: Yours ppd
Ship Acct:

Buyer Chantal Lavoie
Customer POID
Customer Tax # 10127-2607
Terms Net 30
Currency CAD
FOB FCA - (Free Carrier)

Line Total: \$35.50

4	6800ZZ	Bearing	1/6/2017	25.00	\$1.48	\$37.00
			Yes	Each		
			1/6/2017			

AS PER DWG D3183 REV. C
B154868

Line Total: \$37.00

5	PFS-LNNC5/16S1	Lock Nut	1/6/2017	100.00	\$0.09	\$9.10
			Yes	Each		
			1/6/2017			

AS PER DWG D3015 REV. C
B154891

SP17-01-6

Line Total: \$9.10

6	PFS-LNNC7/16S1	SS Nylock Nut 7/16	1/6/2017	25.00	\$0.22	\$5.50
			Yes	Each		
			1/6/2017			

AS PER DWG D3015 REV. C
B154892

Note:

1/4/2017

MAIN INDUSTRIAL SALES LTD.

1475 TESIER ST.
HAWKESBURY ON K6A 3S6
Phone: (613) 632-3595 Ext. Fax: (613) 632-0262
sales@mainindustrialsales.com

Packing Slip

DATE January 04, 2017
NUMBER 0000202012
CUSTOMER NO. DART

BILL TO:

DART AEROSPACE LTD.
1270 ABERDEEN ST.
HAWKESBURY ON K6A 1K7

SHIP TO:

DART AEROSPACE LTD.
1270 ABERDEEN ST.
HAWKESBURY ON K6A 1K7

(613) 632-5200 Ext.

(613) 632-5200 Ext.

P.O. NUMBER		SALESPERSON	ORDER DATE	REQ. DATE	ORDER NUMBER
34477		EB	04-Jan-17		0000202012
F.O.B.	SHIP VIA		TERMS		
F.O.B. value	OUR TRUCK / LOCAL		NET 30 DAYS		
PART NUMBER		UOM	QUANTITY		
DESCRIPTION	LOCATION		REQ.	SHIPPED	B.O.
0-516X112CHBSS 5/16-1 X 1 1/2 18-8 HEX BOLTS YOUR PART #: 5/16-18-015C	26B7	EA	50	50	
0-516FWSS 5/16 18-8 FLAT WASHER YOUR PART #: 5/16WC	26A6	EA	300	300	
0-716X5CHBSS 7/16-14 x 5" HEX BOLTS 18-8 STAINLESS YOUR PART #: 7/16-14-050C	26C7	EA	25	25	
0-68002ZKML BALL BEARING YOUR PART #: 6800ZZ	6D6	EA	25	25	
0-516CNLNSS ✓ 5/16-18 18-8 NYLON LOCKNUT ✓ YOUR PART #: PFS-LNNC5/16S1 ✓	26C6	EA	100	100	
0-716CNLNSS 7/16-14 STAINLESS NYLON LOCKNUT YOUR PART #: PFS-LNNC7/16S1	26A7	EA	25	25	
0-320017		EA	100		100

DAS
38
9-89

SP 17-01-6.

DAS
38
9-89

SP 17-01-6.

CERTIFICATE OF COMPLIANCE

RE: 6800-ZZ BEARING

To Whom It May Concern:

Our bearing rings and balls are made of high carbon chromium steel GCr15 which has a chemical composition equivalent to SAE 52100. The hardness of bearing rings is HRC 59-64 and HRC 60-65 for steel balls. Unless specify, bearings are 25-30% filled with Alvania No. 2 grease or Chevron SRI#2 grease or equivalent.

Stella Fan
Phone: 905-629-4255
Fax: 905-629-2358

